

WHAT IS CLAIMED IS:

1. A portable terminal comprising:

5 a phone body having a plurality of keys and a microphone, which are disposed on an upper surface of the phone body;

a folder having a main speaker and a main LCD, which are disposed on a lower surface of the folder;

10 a hinge unit including a pair of side hinge arms and a center hinge arm, which enable the folder to be rotated away from or towards the phone body, the side hinge arms being opposed to each other, the center hinge arm being disposed between the side hinge arms;

a pair of side speakers provided at the side hinge arms, respectively, the side speakers being oriented in opposite directions along a hinge axis of the portable terminal; and

15 speaker covers arranged along the hinge axis to cover the side speakers, respectively, each of the speaker covers having at least one opening through which one of the side speakers is exposed,

20 wherein each of the speaker covers is fixed to one of the side hinge arms by a first screw and a second screw, so as to cover an outer surface of said one of the side hinge arms, the first screw being screwed in a direction parallel to the hinge axis, the second screw being screwed into said one of the side hinge arms from an upper end of the hinge body in a direction perpendicular to the hinge axis.

2. The portable terminal as claimed in claim 1, wherein:

25 a speaker cover hole is formed through a side surface of each of the side hinge arms;

at least one stopper protrudes from a boundary surface defining the speaker cover hole;

30 at least one assembling rib is formed on a peripheral portion of an inner surface of each of the speaker covers so that the assembling rib can contact the boundary surface; and

a stopper hole formed through the assembling rib so that the stopper can be engaged with the stopper hole.

3. The portable terminal as claimed in claim 1, wherein:

5 a first assembling bracket extending in a direction parallel to the hinge axis from an inner surface of each of the speaker covers and has a first assembling hole formed through the first assembling bracket in a direction perpendicular to the hinge axis;

a second assembling bracket formed inside of each of the side hinge arms so that the second assembling bracket can contact the first assembling bracket, the second
10 assembling bracket having a second assembling hole formed through the second assembling bracket:

a second screw hole formed through each of the side hinge arms in a direction perpendicular to the hinge axis from an upper surface of each of the side hinge arms; and

the first assembling hole, the second assembling hole, and the second screw hole
15 are aligned with each other, and a second screw is screwed sequentially through the second screw hole, the first assembling hole, and the second assembling hole in a direction perpendicular to the hinge axis.

4. The portable terminal as claimed in claim 1, wherein each of the speaker
20 covers has a convex shape.

5. The portable terminal as claimed in claim 1, wherein the center hinge arm is formed integrally with the folder and has a center key disposed on a surface connected to a lower surface of the folder.
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6. The portable terminal as claimed in claim 1, wherein the side hinge arms have grooves formed on upper surfaces of the side hinge arms, respectively, so that corners of a shoulder of the folder can be seated in the grooves when the folder has been closed on the phone body.
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7. The portable terminal as claimed in claim 1, further comprising a sub LCD disposed on the upper surface of the folder.

5 8. The portable terminal as claimed in claim 1, further comprising a camera lens provided at a location of the center hinge arm, which is adjacent to an upper surface of the folder.

10 9. The portable terminal as claimed in claim 1, wherein each of the speaker covers further has a cap covering on the opening of the speaker cover and having pores formed through the cap.

10. A portable terminal comprising:
a phone body having a pair of side hinge arms laterally protruding at one side of the phone body;
15 a folder having a center hinge arm disposed between the side hinge arms;
a pair of side speakers provided at the side hinge arms and oriented in opposite directions along a hinge axis of the portable terminal;
speaker covers arranged along the hinge axis to cover the side speakers, respectively, each of the speaker covers having at least one opening through which one of
20 the side speakers is exposed;
at least one cap covering on the opening of one of the speaker covers and having pores formed through the cap; and
a camera lens provided at a location on the center hinge arm, which is adjacent to an upper surface of the folder, wherein
25 each of the speaker covers is fixed to one of the side hinge arms by a first screw and a second screw, so as to cover an outer surface of said one of the side hinge arms, the first screw being screwed in a direction parallel to the hinge axis, the second screw being screwed into said one of the side hinge arms from an upper end of the hinge body in a direction perpendicular to the hinge axis.

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11. A portable terminal comprising:

a phone body having a plurality of keys and a microphone, which are disposed on an upper surface of the phone body;

5 a folder having a main speaker and a main LCD, which are disposed on a lower surface of the folder;

a hinge unit connecting the phone body with the folder in such a manner to enable the folder to be rotated away from or towards the phone body;

10 a pair of side speakers installed in a pair of side hinge arms which are formed at opposite ends of one side of the phone body, the side speakers being oriented in opposite directions along a hinge axis of the portable terminal; and

a barrier disposed behind the side speakers to prevent sound emitted from the side speakers from interfering with each other.

15 12. The portable terminal as claimed in claim 11, wherein the barrier comprises at least one partition disposed between the side speakers.

13. The portable terminal as claimed in claim 12, wherein the barrier comprises partitions, which contact with rear surfaces of the side speakers, respectively.

20 14. The portable terminal as claimed in claim 12, wherein the barrier further comprises sponge disposed between the partition and each of the side speakers.

25 15. The portable terminal as claimed in claim 11, further comprising:
speaker covers arranged along the hinge axis to cover the side speakers, respectively, each of the speaker covers having at least one opening through which one of the side speakers is exposed; and

at least one cap covering on the opening of one of the speaker covers and having pores formed through the cap,

30 wherein each of the speaker covers is fixed to one of the side hinge arms by a first screw and a second screw, so as to cover an outer surface of said one of the side hinge arms, the first screw being screwed in a direction parallel to the hinge axis, the

second screw being screwed into said one of the side hinge arms from an upper end of the hinge body in a direction perpendicular to the hinge axis.

16. A portable terminal comprising:

5 a phone body having a plurality of keys and a microphone, which are disposed on an upper surface of the phone body;

a folder having a main speaker and a main LCD, which are disposed on a lower surface of the folder;

10 a hinge unit connecting the phone body with the folder to enable the folder to be rotated away from or towards the phone body;

a pair of side speakers installed in a pair of side hinge arms which are formed at opposite ends of one side of the phone body, the side speakers being spaced apart from each other and being oriented in opposite directions along a hinge axis of the portable terminal; and

15 a resonance blocker located between the side speakers to prevent sound emitted from the side speakers from resonating with each other.

17. The portable terminal as claimed in claim 16, wherein the resonance blocker comprises rubber filled between the side speakers.

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18. The portable terminal as claimed in claim 16, wherein the resonance blocker is formed integrally with an inner surface of a housing of the phone body and the side speakers are disposed at both sides of the resonance blocker.

25 19. A portable terminal comprising:

a phone body having a plurality of keys and a microphone, which are disposed on an upper surface of the phone body;

a folder having a main speaker and a main LCD, which are disposed on a lower surface of the folder;

30 a hinge unit connecting the phone body with the folder in such a manner to enable the folder to be rotated away from or towards the phone body;

a pair of side speakers installed in a pair of side hinge arms which are formed at opposite ends of one side of the phone body, the side speakers being spaced apart from each other and being oriented in opposite directions along a hinge axis of the portable terminal; and

5 speaker covers assembled with outer surfaces of the side hinge arms to cover the side speakers, respectively, so as to enable sound emitted from the side speakers to naturally propagate an original tone of the sound.

10 20. The portable terminal as claimed in claim 19, wherein each of the speaker covers has at least one first opening aligned with each of the side speakers and at least one second opening extending along a circumference of said each of the speakers.

15 21. The portable terminal as claimed in claim 19, wherein each of the speaker covers has at least one first opening aligned with each of the side speakers and at least one second opening extending around a circumference of the first opening.

22. The portable terminal as claimed in claim 19, further comprising caps, wherein:

20 each of the speaker covering has at least one first opening aligned with each of the side speakers and at least one second opening extending around a circumference of the first opening to correspond to a circumference of said each of the speakers;

each of the caps is covered on the first opening and the second opening and having a plurality of pores; and

25 the second opening serves as an assembling portion with which the cap is engaged.